

REMARKS

In the Office Action dated April 1, 2003, claims 1-18 were presented for examination. Claims 1-14 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Ashcroft et al.*, U.S. Patent No. 6,460,144, and claims 15-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Ashcroft et al.*

Applicant wishes to thank the Examiner for the careful and thorough review and action on the merits in this application.

I. 35 U.S.C. §102(e) - Anticipation by *Ashcroft et al*

In the Office Action of April 1, 2003, the Examiner rejected claims 1-14 under 35 U.S.C. §102(e) as being anticipated by *Ashcroft et al.*, U.S. Patent No. 6,460,144. *Ashcroft et al.* discloses a computer system with a shared disk array, in which the magnetic disk units of the shared disk array are mirrored. Accordingly, the *Ashcroft et al.* patent discloses multiple plexes for use in duplicating data across a shared disk array.

Applicant's invention as shown in amended claims 1 and 9 functions on a different principle than that taught in *Ashcroft et al.* Applicant's invention includes a first plex connected to a network device, and a second plex connected to a data storage device. A volume is connected to both the first and second plexes. Both the volume and the plexes are grouped in the kernel layer of the operating system. This grouping allows data to be directly communicated between nodes at the kernel layer of the operating system, thereby avoiding copying of the data through the user layers of the operating system. Accordingly, the plexes and volume of Applicant avoids duplication of data at multiple layers of the operating system.

In order for the claimed invention to be anticipated under 35 U.S.C. §102(e), the prior art must teach all claimed limitations presented by the claimed invention. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131 (citing *Verdegaal Bros. v.*

Union Oil Co. of California, 814 F. 2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)). As mentioned above, *Ashcroft et al.* does not show all of the elements as claimed by Applicant in amended claims 1 and 9. Specifically, *Ashcroft et al.* does not show plexes or a volume grouped in the kernel layer of the operating system to enable direct transfer of data from a kernel layer of a source node to a kernel layer of a target node. Accordingly, *Ashcroft et al.* fails to teach all the claim limitations present in Applicant's claimed invention.

II. 35 U.S.C. §103(a) - Obviousness in view of *Ashcroft et al.*

Claims 15-18 were rejected under 35 U.S.C. §103(a) as being unpatentable in view of *Ashcroft et al.*, U.S. Patent No. 6,460,144.

Applicant hereby incorporates the discussion of the *Ashcroft et al.* patent from above.

As shown in amended claim 15, Applicant has means for managing a direct transfer of data from a kernel layer of a source node to a kernel layer of a target node. Among the benefits of direct transfer of data in the kernel layer is the ability to avoid copying of data through the user layers of the operating system. Placing both the plexes and volume in the kernel layer enable direct communication from the kernel layer of the source node to the kernel layer of the target node, thus avoiding duplication of data at multiple layers of the operating system. Accordingly, efficiency in data backup and restoration is increased.

Applicant's invention as shown in amended claim 15 cites limitation that are not taught in *Ashcroft et al.* In order for the claimed invention to be obvious under 35 U.S.C. §103(a), the prior art must teach or suggest all claimed limitations presented by the claimed invention. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03 (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). As mentioned above, there is no teaching, suggestion or motivation in *Ashcroft et al.* to directly communicate transfer of data from the kernel layer of the source node to the kernel layer of the target node. Accordingly, the cited prior art fails to teach or suggest all

the claim limitations present in Applicant's claimed invention.

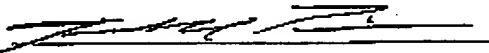
Prior Art Made of Record

The prior art made of record by the Examiner and not relied upon, i.e., *Taylor*, U.S. Patent No. 6,490,598, *Armangau*, U.S. Patent No. 6,434,681, *Ofek et al.*, U.S. Patent No. 6,397,308, *Dunham*, U.S. Patent No. 6,353,878, *Dunham*, U.S. Patent No. 6,269,431, *St. Pierre et al.*, U.S. Patent No. 6,269,381, *Sliwinski*, U.S. Patent No. 6,167,531, *Ofek*, U.S. Patent No. 5,857,208, and *Beshears et al.*, U.S. Patent No. 5,621,884, has been reviewed.

In light of the foregoing amendments and remarks, all of the claims now presented are in condition for allowance, and Applicants respectfully request that the outstanding rejections be withdrawn and this application be passed to issue.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application.

Respectfully submitted,


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